Amendments to the Drawings:

The attached replacement sheet containing Figs. 1-3 replaces the corresponding sheet in the application. In Fig. 1 of the replacement sheet, the lead line for reference numeral "5" has been modified.

Attachment: Replacement Sheet Containing Figs. 1-3

REMARKS/ARGUMENTS

Reconsideration of the application as amended is respectfully requested.

Status of Claims

Claims 1-13 and 15-25 are pending in the application, with claim 1 being the only independent claim. Claims 1-13 and 15-25 have been amended. Claim 14 has been canceled, without prejudice.

Overview of the Office Action

Claims 13 and 15 stand rejected under 35 U.S.C. 112, second paragraph, because of a few informalities and expressions in claim 13.

Claims 1-4, 6, 7, 9-12, 15, 16, 18 and 20 stand rejected under 35 U.S.C. 102(e) as anticipated by U.S. Patent No. 6,673,254 (*Marshall*).

Claims 5, 13, 17 and 21-25 stand rejected under 35 U.S.C. 103(a) as unpatentable over *Marshall* in view of U.S. Patent Application Publication No. 2001/0042866 (*Coman*).

Claims 8 and 19 stand rejected under 35 U.S.C. 103(a) as unpatentable over *Marshall* in view of *Coman* and further in view of U.S. Patent No. 6,693,352 (*Huang*).

Amendments Addressing Informalities

The expression "n-doped GaN compounds does not lead to a crystal quality that is adequate for a light-emitting diode" is included in the German priority application No. DE 102 44 986.4 but was inadvertently omitted from the subject application. That expression has now been added to paragraph [0005] of the published specification to complete the last

sentence thereof. No new matter has been added as paragraph [0005] relates to the background of the invention.

Claim 13 has been amended to eliminate the informalities listed in the Office Action. Claim 13 has also been amended to more particularly point out the subject matter of the claim and to clarify the distances between adjacent contact elements. As shown in Figs. 1 and 4 of the published specification, the contact elements 9 are disposed on the p-doped layer 8. The p-doped layer 8 has a given thickness and a given transverse conductivity, both of which affect the spreading of the current impressed into the interface 11 facing the active zone 2. The distance between every two adjacent contact elements 9 is chosen so that when the spreading of the current reaches the interface 11, it would energize or "cover" the entire interface 11. Thus, for a p-doped layer 8 having a constant thickness, the distance between every two adjacent contact elements 9 has to be smaller in areas of the p-doped layer 8 that have a relatively poor transverse conductivity than in areas having a relatively good transverse conductivity in order to energize the whole area of the interface 11.

In view of these amendments and explanations, withdrawal of the rejection under 35 U.S.C. 112, second paragraph, of claim 13 is respectfully requested.

Summary of Subject Matter Disclosed in the Specification

The following descriptive details are based on the specification. They are provided only for the convenience of the Examiner as part of the discussion presented herein, and are not intended to argue limitations which are unclaimed.

The specification discloses a radiation-emitting semiconductor component. The component includes a semiconductor body 1 having an active zone 2; a patterned contact layer 3

applied on a surface of the semiconductor body 1 for electrical contact connection; interspaces 4 distributed over the contact layer 3 for the purpose of forming free areas 5 on the surface which are not covered by the contact layer 3; and a mirror 6 for covering the free areas 5. *See* Figs. 1-3; and paragraphs [0011] and [0055] of the published specification.

Arguments

Independent Claim 1

Applicants respectfully submit that claim 1, as amended, is not anticipated by *Marshall* because *Marshall* does not disclose, either expressly or inherently, each and every element now recited in claim 1. In particular, *Marshall* does not disclose or suggest (a) a patterned contact layer, and (b) an active zone.

The Examiner contends that the micro-posts 14 of *Marshall* constitute a patterned contact layer. Applicants respectfully disagree.

Marshall relates to a micro heat barrier, and explicitly teaches that the micro-posts 14 are made of non-metallic, poor thermal conductors, such as silicon, germanium, or gallium arsenide, in order to minimize heat transfer. *See* Fig. 1; abstract; and col. 4, lines 39-49 of *Marshall*. These poor thermal conductors also have poor electrical conductivity. Therefore, there is neither a hint in *Marshall* that the micro-posts 14 are used for the purposes of electrical contact connection on the surface of the semiconductor body, nor can the micro-posts 14 provide a good electrical contact connection.

In sharp contrast, claim 1 of the present application specifically recites "a patterned contact layer … for electrical contact connection".

In addition, contrary to the Examiner's interpretation, the semiconductor body/substrate 1 of *Marshall* does not have an active zone, as recited in claim 1. If the Examiner remains of a contrary view, she is respectfully requested to point out exactly where in *Marshall* support for such a review exists.

In view of these differences, withdrawal of the 35 U.S.C. 102(e) rejection of claim 1 is respectfully requested.

Moreover, applicants respectfully submit that the above-discussed fundamental differences between claim 1 and *Marshall* clearly and patentably distinguish claim 1 thereover under 35 U.S.C. 103.

Dependent Claims 2-13 and 15-25

Claims 2-13 and 15-25 depend, either directly or indirectly, from claim 1 and, thus, each is allowable therewith.

In addition, Claims 2-13 and 15-25 include features that serve to even more clearly distinguish the claimed invention over the applied references.

In particular, with respect to claims 3, 4 and 6, the micro-posts 14 of Marshall, as discussed above, are made of a non-metallic material. Therefore, *Marshall* does not disclose that the contact layer contains nickel (col. 2, line 38 of *Marshall* refers to prior art). As a result, *Marshall* does not anticipate claims 3, 4 and 6.

In addition, *Marshall* does not anticipate claim 16. More specifically, the protective layer 58 of *Marshall* does not constitute a filler because the protective layer 58 is temporarily applied during manufacturing, and is eventually removed to create a gap between the reflecting layer 60 and the substrate 52. *See* Figs. 5e and 8; col. 8, lines 56-65, col. 9, lines 9-17 of *Marshall*. In *Marshall*,

the gap is essential because the gap decreases the thermal conductivity of the micro heat barrier. According to *Marshall*, it is even better if the gap is evacuated. *See* col. 4, lines 61-64 of *Marshall*. Thus, the finished micro heat barrier of *Marshall* does not have a filler, as recited in claim 16.

Moreover, applicants respectfully submit that *Marshall* is nonanalogous art. As discussed above, *Marshall* relates to a micro heat barrier. The present invention, on the other hand, relates to a radiation-emitting semiconductor component. *Marshall* aims to minimize heat transfer and achieve highly effective thermal insulation by using tapered micro-posts made of a poor thermal conductor. Applicants here aim to have a radiation-emitting semiconductor component that has both a good electrical contact connection and a good reflectivity for the radiation generated in the component. Thus, *Marshall* is neither in the field of applicants' endeavor, nor is it reasonably pertinent to the particular problem with which the inventors were concerned.

Without *Marshall*, withdrawal of the 35 U.S.C. 103 rejection of claims 5, 8, 13, 17, 19 and 21-25 is in order.

Conclusion

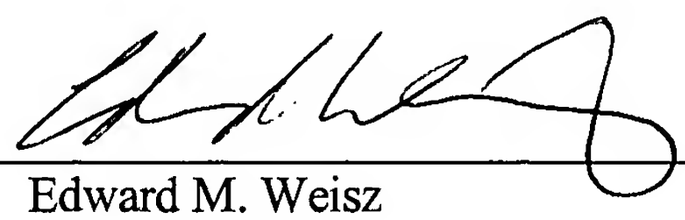
Based on all of the above, it is respectfully submitted that the present application is now in full and proper condition for allowance. Prompt and favorable action to this effect, and early passage of this application to issue, are once more solicited.

In the event of any comments, questions, suggestions or objections, the Examiner is urged to telephone the undersigned to facilitate an early resolution of any outstanding issues.

It is believed that no fees or charges are required at this time in connection with this application; however, if any such fees or charges are required at this time, they may be charged to our Patent and Trademark Office Deposit Account No. 03-2412.

Respectfully submitted,

COHEN, PONTANI, LIEBERMAN & PAVANE

By 

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